USING MANCOZEB
Is it compatible with RLF's Canola Plus ?

by Steve Wornes, Senior Process Chemist

Recently a question was asked by one of RLF's China distributors about the compatibility issues surrounding the use of Mancozeb (a fungicide manufactured internationally by a leading chemical company) with **Canola Plus**. The possibility was raised that an incompatibility between the two had caused the yellowing of leaves on a grower's apple crop.

The Chemist's Response

Mancozeb is chemically compatible with **Canola Plus** and based on anecdotal evidence is also physically and biologically compatible.

However, RLF does not have direct proof that application of the two products together is safe for all types of crops. There are many factors which affect the sensitivity of crops to pesticide/foliar fertiliser mixes.

Several key factors are :

- **Pesticide/fungicide formulation type** i.e. emulsifiable concentrate (EC), wettable powder (WP), suspension concentrate (SC), soluble liquid (SL) etc. should be considered. Each formulation type has a different surfactant system which can affect the degree of penetration the spray mixture has into the leaf surface. In my experience, it is usually other components of the pesticide formulation (surfactant, carrier solvent etc.), not the active ingredient, that are responsible for causing leaf damage following application of a mixture.

- **Incorrect mixing order of products.** This is especially applicable when the pesticide formulation needs to be completely dispersed in water before addition of the liquid fertiliser. For example, EC, WP and SC formulations all need to be fully dispersed before the liquid fertiliser is added. If the pesticide is mixed with the liquid fertiliser in the concentrated form and is not completely dispersed, droplets of concentrated pesticide formulation contacting the leaf can result in damage to the leaf tissue.

- **Spray solution pH** – change in the pH of the spray solution as a result of adding liquid fertiliser can also affect the performance of the pesticide. A large increase or decrease in the pH of the spray solution usually only impacts the biological efficacy of the pesticide active ingredient. In some cases, however, a decrease in pH may cause an increase in phytotoxicity following application of certain pesticides/fungicides to sensitive crops.

- **Timing of the application** – this is often a factor when tank mixes of pesticide and fertiliser are applied in non-ideal weather conditions, e.g. hot and/or windy conditions or other prevailing adverse weather conditions.

So, it is important to be aware of all of these possible implications, particularly if the product used is not specifically for the crop type being treated.

RLF's Compatibility Matrix lists the entire range of RLF product against many different and known chemicals used in agriculture today. It can be viewed here.

ASK THE CHEMIST
Click here to ask a question to RLF's Senior Process Chemist